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U.S. Department of the Interior
Bureau of Land Management
Worland District Office

Bighorn Basin Resource Area

January 1997

Decision Record and Finding of No Significant Impact for the Management of the Big Cedar Ridge Fossil Plant Area Environmental Assessment WY-015-EA5-037

The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield; a combination of uses that take into account the long term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness and natural, scenic, scientific and cultural values.



Ruffordia goeppertii
(Denker) Seward



"Polymorphia"
Broad base



Acer cretaceum



Cladophlebia
virginensis

BLM/WY/PL-97/007+1050

97-019930

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Worland District Office
P.O. Box 119 (101 South 23rd Street)
Worland, Wyoming 82401-0119

1601

Dear Interested Party:

Attached is the decision record outlining management for the Big Cedar Ridge Fossil Plant Area. The fossil plant area, located about halfway between Worland and Ten Sleep, is in the BLM's Bighorn Basin Resource Area.

As described in the attached decision record, management for the area will emphasize public education, interpretation, and research. As part of the emphasis on education, the public will be allowed to collect plant fossils using hand tools and BLM is preparing a field guide to help people identify their fossils.

With this decision, the BLM will also designate an area of critical environmental concern (ACEC) on about 260 acres of BLM-administered public lands where the important plant fossils are concentrated, and will pursue a withdrawal from the filing of mining claims on the same 260 acres. The decision to designate the ACEC followed a protest on the BLM's December 19, 1995 environmental assessment for the Big Cedar Ridge Fossil Plant area, and verification of that protest, that the 260 acres meet the ACEC designation criteria. A 60-day public comment period on the ACEC designation will begin when a notice announcing the availability of BLM's Decision Record is published in the *Federal Register*. Comments may be mailed to the address shown above, Attn: Dave Baker, Outdoor Recreation Planner; or Attn: Bob Ross, District Planner.

Comments, including names and street addresses of respondents, will be available for public review at the BLM's Worland District office during regular business hours 7:30 a.m. to 4:30 p.m., Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

We appreciate your participation in this planning effort and look forward to your continued involvement.

Sincerely,

Darrell Barnes
Worland District Manager

**U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

**DECISION RECORD
AND
FINDING OF
NO SIGNIFICANT IMPACT
(FONSI)**

for the

**MANAGEMENT OF THE
BIG CEDAR RIDGE FOSSIL PLANT AREA**

in the

Bureau of Land Management's Worland District
Bighorn Basin Resource Area
Washakie County, Wyoming

January 1997

Prepared by
U.S. Department of the Interior
Bureau of Land Management
Worland District
Bighorn Basin Resource Area
Worland, Wyoming

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DECISION RECORD

**and Finding of No Significant Impact
for the
Management of the Big Cedar Ridge
Fossil Plant Area
in
Washakie County, Wyoming

Environmental Assessment
WY-015-EA5-037**

DECISION

The Decision is to adopt Alternative 2 of the environmental assessment (EA-WY-015-EA5-037) for managing the Big Cedar Ridge Fossil Plant Area. In addition, it is decided that 260 acres of Bureau of Land Management-administered (BLM) public lands within the Big Cedar Ridge area will be designated an area of critical environmental concern (ACEC). With this decision:

- The attached management plan for the Big Cedar Ridge Fossil Plant Area is adopted as the general management prescription for the area.
- The attached management plan is a slight modification of Alternative 2 in the above referenced environmental assessment (EA). In addition to designating an ACEC, these modifications consist of editorial corrections and clarification of some of the management actions described in Alternative 2.

-- The general management objective and emphasis within the Big Cedar Ridge Fossil Plant Area will be for scientific research, public education, recreation, and protection of the fossil resources.

-- The BLM will pursue withdrawal of the public lands from entry under the mining laws for the staking of mining claims on 260 acres of BLM-administered public lands where fossils are concentrated. This action constitutes an amendment to the Washakie Resource Management Plan (RMP).

-- An ACEC is designated on the 260 acres where fossils are concentrated. This ACEC designation constitutes an amendment to the Washakie RMP and will take effect at the end of a 60-day public comment period. The 60-day period will start when a notice of this RMP amendment and proposed ACEC designation is published in the *Federal Register*. ***[Note – the planning regulations (43 CFR 1610.7-2(b)) require a 60-day public comment period for proposed ACEC designations. Because the preferred alternative (Alternative 2) in the December 1995 EA did not include an ACEC designation, this 60-day comment period was not provided as part of the public review/comment period for the EA. Thus, a 60-day comment period must now be provided for the proposed 260-acre ACEC designation.]***

- ▶ A detailed activity or implementation plan will be developed for the 260-acre fossil concentration areas. These areas will be routinely monitored and any needed management changes will be made to insure that resource damage does not occur.
- ▶ The 260-acre fossil concentration areas will be managed primarily for research, public education, and fossil interpretation, as well as hobby (noncommercial) collection of fossils.
- ▶ Surface-disturbing activities that are not related to research, public education, interpretation, or hobby collection of fossils will be prohibited in the 260-acre fossil concentration areas.

-- As required, further environmental analyses will be conducted on any future site-specific activity or implementation planning to be done in the Big Cedar Ridge area. This would include opportunities for public involvement.

-- Any detailed activity planning that may be conducted in the Big Cedar Ridge area will consider needs for site-specific mitigation of surface-disturbing activities for things like locating trails, roads, exhibits, and facilities to enhance public education.

RATIONALE

The fossil concentration areas on Big Cedar Ridge meet the relevance and importance criteria for ACEC designation. These areas, hereinafter described as "fossil concentration areas," are comprised of four separate outcrops of the Meeteetse Formation and total about 260 acres. The fossil plants were discovered in 1990 by Dr. Scott Wing of the Smithsonian Institution and represent a complete, well-preserved late Cretaceous-age vegetative community. This discovery created significant interest within the academic community. Worldwide, discoveries of such well preserved fossil plants of this age are rare and the fossils are considered to be of great scientific importance.

The outstanding paleontological resources are the result of a volcanic ash fall which buried the standing vegetation on a low coastal plain 72 million years ago. The plants were preserved in the base of the ash, in many cases still rooted in the underlying soils. Such *in situ* preservation is extremely rare. The vegetative community preserved in this ash fall was a mixture of flowering plants, ferns, palms, and coniferous trees suggesting a mosaic of forest and open glades.

The flora in this outcrop represents a true instant in time, preserving relationships between ancient landscapes and vegetation. Paleobotanists have already been able to establish plant, soil, and topographic associations. This is possibly the oldest site in the world where such associations have been determined. Excavation in this area in 1992 resulted in the identification of over 100 new plant species. Scientists have also been able to distinguish at least five different types of insect predation which took place on the flora of Big Cedar Ridge.

Alternative 2 in the December 1995 EA did not include this proposed ACEC designation. The designation and its consequences had been considered for the entire Big Cedar Ridge area (1,550 acres) in alternatives 3, 4, and 5. The proposed decision to designate a 260-acre ACEC was made following a protest of the EA by the Sierra Club, Northern Great Plains Region, and the Wyoming Outdoor Council.

To better explain the purpose and effect of ACEC designations and why or how they come about, the following is pointed out.

- The BLM is mandated, in Section 202(c)(3) of the Federal Land Policy and Management Act (FLPMA), to "(c) in the development and revision of land use plans,...(3) give priority to the designation and protection of areas of critical environmental concern."
- An ACEC designation applies only to BLM-administered public lands. It applies primarily to the public land "surface" estate (that is, it does not apply to the mineral estate). However in rare instances, a designation may apply to subsurface geologic formations like karst formations or caves.
- An ACEC designation does not change the allowed uses of public lands (43 CFR 1601-0-5(a)). The only automatic protective requirement associated with an ACEC designation is that a plan of operations is mandated for any mining development, even for small disturbances (43 CFR 3809.1-4(b)(3)). (Since there are no existing claims in the Big Cedar Ridge area and the proposed mineral withdrawal would prohibit the future staking of mining claims, this distinction is moot.)
- An ACEC designation does not automatically require protective measures to be applied simply because of the designation. Rather, the nature of the important values, resources, or natural hazards of an area of public land are identified and they, in turn, determine the appropriate level of management and protection needed. Thus, the appropriate level of management and protection needed for an area would be applied, whether or not it were designated an ACEC. The designation itself, is a separate function. An ACEC designation results from a finding that the area meets one or more of the relevance and importance criteria and that it requires special management attention. (BLM planning regulations 43 CFR 1610-.7-2, and BLM Manual Sections 1613.11 and 1613.12.)

The December 19, 1995 EA addressed the environmental consequences of ACEC designation on 1,550 acres in three of its alternatives. Those consequences would be about the same for the 260-acre ACEC designation in this RMP amendment. In effect, the ACEC designation could cause a slight increase in visitors to the area. There could be some gain in economical benefit to local communities from increased tourism. As pointed

out in Alternative 2 of the EA, the potential for vandalism from increased visitor use could be mitigated through public education and the public would become more knowledgeable about paleontological resources.

By adopting Alternative 2, as modified, the resources and educational opportunities of the Big Cedar Ridge fossil concentration areas would be adequately protected.

SUMMARY OF PUBLIC COMMENTS ON THE ENVIRONMENTAL ASSESSMENT

Environmental Assessment WY-015-EA5-037 was available for public review and comment from January 18, 1996 through February 17, 1996. Ten letters and phone comments were received.

Comment: Two people favored public education and hobby fossil collecting.

Comment: The Wyoming Governor and the Washakie County Commissioners favored the preferred alternative (Alternative 2).

Comment: One commentator favored the "No Action Alternative" (Alternative 1) saying that added visitation related to management of the area for public education would result in the fossils being damaged or destroyed.

Comment: Three commentators favored protection of the site for research, public education, and hobby fossil collecting and said they would support an ACEC designation.

Comment: One commentator said the EA failed to fully examine the impacts of hobby fossil collecting and oil and gas development. The commentator felt that stricter controls were needed and favored "no surface occupancy" for most surface-disturbing activities.

The commentator also said the EA did not comply with FLPMA because that law directed the BLM to give priority to designation and protection of ACECs and the area, in his opinion, met the ACEC designation criteria. This commentator protested the EA. That protest has been resolved by incorporating the above-mentioned changes to Alternative 2.

Comment: One commentor said the EA had not adequately addressed mineral resources and questioned the effect of the proposed withdrawal on mineral development and use of a BLM road. This commentor protested the EA. While his submission did not meet the regulatory requirements for protests, this commentor will receive a written response to resolve his concerns.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Based on the attached general management prescription and referenced environmental assessment, I find that the selection of the attached management plan for the Big Cedar Ridge area and the ACEC designation on the 260-acre fossil concentration area would have no significant impact on the human environment and that the preparation of an environmental impact statement (EIS) is not necessary.



Alan R. Pierson, Wyoming State Director
Bureau of Land Management

4/23/97

Date

GENERAL MANAGEMENT PRESCRIPTION for the BIG CEDAR RIDGE FOSSIL PLANT AREA

General

A detailed activity or implementation plan will be developed for the Big Cedar Ridge Fossil Plant Area. This activity plan will help BLM monitor the effectiveness of the prescribed management including the objective of enhancing opportunities for scientific research, public education, and hobby collection of fossils. The area also will be routinely monitored through field inspections and any needed management changes will be made to insure that resource damage does not occur.

Requirements for Surface-Disturbing Activities

Based on site-specific environmental analyses, surface-disturbing activities will be limited during wet weather, on frozen soils, and on slopes greater than 25 percent; surface-disturbing activities will be prohibited within 500 feet of surface water and/or riparian areas; and surface-disturbing activities will be avoided in the immediate vicinity of significant cultural and paleontological resource sites. These provisions will result in prohibiting the location or construction of rights-of-way (for such things as pipelines, roads, power lines, and well drilling sites) and the use of heavy equipment or construction and excavation equipment within the fossil concentration areas (260 acres). The use and maintenance of existing rights-of-ways, such as the Bluebank Road and existing range improvement projects, will not be affected.

The remainder of the Big Cedar Ridge area (1,290 acres) will be open to consideration for surface-disturbing activities, consistent with the general provisions of the Washakie RMP.

- Any detailed activity planning that may be conducted in the Big Cedar Ridge area will consider needs for site-specific mitigation of surface-disturbing activities for things like locating trails, roads, exhibits, and facilities to enhance public education.

Surface-disturbing activities associated only with the use of hand tools for the purposes of research and hobby collecting of the plant fossils, will be allowed on the fossil concentration areas.

Cultural Resources Management

Site-specific surveys for cultural and historic resources will be conducted before surface-disturbing activities are approved. (This requirement would not apply to hobby collection of plant fossils in the concentration areas. Surveys of those areas by BLM have documented the absence of cultural resources on the land surface.)

Surface-disturbing activities in the entire Big Cedar Ridge area (1,550 acres) will be required to avoid significant cultural resources or sites. If avoidance is not possible, intensive mitigation of the surface-disturbing activities will be required to avoid adverse effects to significant cultural resources.

Lands and Realty Management

Rights-of-way will be prohibited or avoided on the 260-acre fossil concentration areas. The remainder of the Big Cedar Ridge area (1,290 acres) will be open to consideration for development of rights-of-way and other realty actions such as the sale or exchange of public lands, subject to site-specific mitigation.

A withdrawal from mineral location will be pursued on the fossil concentration areas to close them to the filing of mining claims.

Minerals Management

General

Surface-disturbing activities associated with all types of minerals exploration and development, and with geophysical exploration and geothermal resources development, will be subject to appropriate restrictions and mitigation requirements to avoid unnecessary or undue degradation of other resource values.

Coal/Gas/Oil

The Big Cedar Ridge area will be open to consideration of coal, gas, and oil leasing, exploration, and development.

Surface-disturbing activities associated with coal, gas, or oil exploration and development will be prohibited on the 260-acre fossil concentration areas. In the remaining 1,290 acres, seasonal limitations will be applied to coal, gas, and oil exploration and development to protect sage grouse during breeding and nesting.

Mitigation requirements to protect other resources, as appropriate, will be applied as stipulations on coal, gas and oil leases, or, consistent with 43 CFR 3101, as conditions of approval for gas and oil exploration and development.

Geophysical Exploration

Surface-disturbing activities associated with geophysical exploration will be prohibited in the 260-acre fossil concentration areas. The remainder of the Big Cedar Ridge area (1,290 acres) will be open to consideration of geophysical exploration.

Geothermal Resources

The entire Big Cedar Ridge area (1,550 acres) will be open to consideration for the leasing of geothermal resources.

Surface-disturbing activities associated with geothermal exploration and development will be prohibited on the 260-acre fossil concentration areas.

Locatable Minerals

The 260-acre fossil concentration areas will be closed to the staking of mining claims and a withdrawal from mineral location will be pursued. The remaining public lands in the area (1,290 acres) will be open to mineral location.

On those lands open to mineral location, mining claim-related activities (other than casual use) will require a "Plan of Operations" for surface disturbances greater than 5 acres (43 CFR 3809).

Any locatable minerals actions will be reviewed to insure compliance with the BLM bonding policy for surface-disturbing activities.

Salable Minerals

The 260-acre fossil concentration areas will be closed to the sale of sand, gravel, or other mineral materials and related exploration and development activities. The remaining 1,290 acres of the Big Cedar Ridge area will be open for mineral material sales on a case-by-case basis.

Paleontological (Fossil) Resources Management

The management objective and emphasis within the Big Cedar Ridge Fossil Plant Area will be for the protection of fossil resources, scientific research, public education, and recreation.

Site-specific surveys for fossil resources will be conducted before any surface-disturbing activities in the Big Cedar Ridge area are approved.

Generally, surface-disturbing activities in the entire Big Cedar Ridge area will be required to avoid significant fossil resources. If avoidance is not possible, intensive mitigation of the surface-disturbing activities will be required to avoid significant adverse effects to the paleontological resources.

Surface-disturbing activities, associated only with the use of hand tools for the purposes of research and hobby collecting of the plant fossils, will be allowed on the fossil concentration areas.

Paleontological research in the area will be encouraged through cooperative agreements with universities and professional groups. On a case-by-case basis, the BLM will consider possibilities of participating in fossil excavation projects.

Recreation Management

General

Recreational use will be managed to maintain existing activities such as hiking, sightseeing, hunting, and hobby fossil collecting.

Recreational use of the area will be encouraged through interpretive signs and the development of minor facilities, if necessary.

Off-Road Vehicle Management

Off-road vehicle travel in the Big Cedar Ridge area is "limited to existing roads and trails" as described in the Washakie RMP.

Public Education

Public education opportunities in the Big Cedar Ridge area will be encouraged and expanded. The BLM will work with museums in highlighting fossils from the area.